

Formulas

v = velocidad

x = distancia

t = tiempo

a = aceleracion

Formulas en una dimension

$$v_{xf} = v_{xi} + a_x t$$

$$x_f = x_i + \frac{1}{2}(v_{xi} + v_{xf})t$$

$$x_f = x_i + v_{xi}t + \frac{1}{2}a_x t^2$$

$$v_{xf}^2 = v_{xi}^2 + 2a_x(x_f - x_i)$$

Formulas en dos dimensiones

$$v_{xi} = v_i \cos \theta_i$$

$$v_{yi} = v_i \sin \theta_i$$

$$x_f = v_{xi}t$$

$$y_f = v_{yi}t + \frac{1}{2}a_y t^2$$

Distancia maxima:

$$R = \frac{v_i^2 \sin 2\theta_i}{g}$$

Altura maxima:

$$h = \frac{v_i^2 \sin^2 \theta_i}{2g}$$